ABSTRACT OF THE DISCLOSURE

A method referred to as a "cellular damascene method" utilizes a multiplicity of regularly arranged closed cavities referred to as "cells", which are produced in a patterning layer. The dimensions of the cavities are on the order of magnitude of the microstructures to be produced. Selected cavities are opened by providing a mask and partitions situated between adjacent opened cavities are removed to provide trenches and holes which are filled with the material of the microstructure to be fabricated. Protruding material is removed by means of a chemical-mechanical polishing step. The microstructures are, in particular, interconnects and contact holes of integrated circuit.